

Title (en)
MECHANICAL PENCIL

Title (de)
MECHANISCHER STIFT

Title (fr)
PORTEMINE

Publication
EP 3450197 A4 20191127 (EN)

Application
EP 17789635 A 20170427

Priority
• JP 2016088667 A 20160427
• JP 2017016650 W 20170427

Abstract (en)
[origin: EP3450197A1] A mechanical pencil according to an embodiment includes: a barrel; a cushion spring that has a rear end supported by the barrel; a sleeve that is biased forward in an axial direction by the cushion spring and movable in a direction perpendicular to the axial direction by an impact applied from outside of the barrel in an elastically supported state; a chuck spring that has a front end supported by the sleeve; a chuck that chucks a writing lead for a mechanical pencil; a writing lead tube that is fitted to the chuck and biased rearward in the axial direction together with the chuck by the chuck spring; and a contact sliding part that suppresses movement of the sleeve in the direction perpendicular to the axial direction.

IPC 8 full level
B43K 21/16 (2006.01); **B43K 21/00** (2006.01)

CPC (source: EP KR US)
B43K 21/00 (2013.01 - US); **B43K 21/006** (2013.01 - KR); **B43K 21/16** (2013.01 - KR US); **B43K 21/20** (2013.01 - US);
B43K 21/22 (2013.01 - EP KR US)

Citation (search report)
• [XA] EP 1118476 A2 20010725 - KOTOBUKI & CO LTD [JP]
• [A] EP 0715968 A1 19960612 - KOTOBUKI & CO LTD [JP]
• [A] US 4205924 A 19800603 - SUMITA YO [JP]
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• [A] US 2016039243 A1 20160211 - AIZAWA YOSHITOSHI [JP], et al
• [A] US 4106874 A 19780815 - TORII OSAMU
• [A] JP 2016036949 A 20160322 - ZEBRA PEN CORP
• [A] JP S56156689 U 19811121
• See references of WO 2017188353A1

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)
EP 3450197 A1 20190306; EP 3450197 A4 20191127; CN 108698433 A 20181023; CN 108698433 B 20200522; JP 6700381 B2 20200527;
JP WO2017188353 A1 20190322; KR 102174751 B1 20201105; KR 20180135443 A 20181220; US 10603948 B2 20200331;
US 2019054756 A1 20190221; WO 2017188353 A1 20171102

DOCDB simple family (application)
EP 17789635 A 20170427; CN 201780014399 A 20170427; JP 2017016650 W 20170427; JP 2018514685 A 20170427;
KR 20187027808 A 20170427; US 201816169876 A 20181024